

Title (en)

TOUCH DISPLAY DEVICE AND BACKLIGHT UNIT THEREOF

Title (de)

BERÜHRUNGSANZEIGEVORRICHTUNG UND RÜCKBELEUCHTUNGSEINHEIT DAFÜR

Title (fr)

DISPOSITIF D'AFFICHAGE TACTILE ET UNITÉ DE RÉTROÉCLAIRAGE DE CELUI-CI

Publication

EP 3229117 B1 20221130 (EN)

Application

EP 16182312 A 20160802

Priority

KR 20160040780 A 20160404

Abstract (en)

[origin: EP3229117A2] Discussed is a touch display device able to sense a touch position of a user touch and an amount of user touching force. A case disposed below the backlight unit is used as a touching force sensing electrode, enabling a touch display device to sense touch force using the case. A gap is formed by an open area in the bottom cover of the backlight unit, enabling the user touching force to be sensed without an increase in the thickness of the touch display device.

IPC 8 full level

G06F 3/041 (2006.01); **G06F 3/044** (2006.01)

CPC (source: CN EP KR US)

G01L 1/14 (2013.01 - KR); **G02F 1/133308** (2013.01 - KR); **G02F 1/13338** (2013.01 - KR); **G02F 1/133615** (2013.01 - KR); **G06F 3/0412** (2013.01 - EP KR); **G06F 3/0414** (2013.01 - CN KR); **G06F 3/04144** (2019.04 - EP US); **G06F 3/0416** (2013.01 - CN); **G06F 3/044** (2013.01 - US); **G06F 3/0445** (2019.04 - EP); **G06F 3/0447** (2019.04 - EP); **G06F 3/0412** (2013.01 - US); **G06F 2203/04105** (2013.01 - EP US); **G06F 2203/04106** (2013.01 - US)

Citation (examination)

- WO 2016033219 A1 20160303 - APPLE INC [US]
- EP 2990913 A1 20160302 - LG DISPLAY CO LTD [KR]
- US 2013234734 A1 20130912 - IIDA FUMIHIKO [JP], et al

Cited by

CN108196714A; US10969955B2; JP2021523458A; US11604532B2; WO2019215177A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3229117 A2 20171011; **EP 3229117 A3 20171018**; **EP 3229117 B1 20221130**; CN 107291285 A 20171024; CN 107291285 B 20201222; KR 101761361 B1 20170725; US 10372253 B2 20190806; US 2017285829 A1 20171005

DOCDB simple family (application)

EP 16182312 A 20160802; CN 201610622160 A 20160801; KR 20160040780 A 20160404; US 201615225635 A 20160801